Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A computer-implemented method ~~for interpreting a knowledge item~~, comprising:

receiving data identifying a first knowledge item;

~~identifying~~ retrieving, from a database, first information to be used in selecting a meaning for the first knowledge item, where the database associates each of a plurality of knowledge items with information related to the knowledge item, and the first information is one or more documents related to ~~a use of~~ the first knowledge item;

determining, in a computer system comprising one or more servers, one or more first information meanings of the first information, the determining comprising, for each document in the first information, selecting one or more meanings for terms in the document from meanings associated with the terms in ~~by selecting one or more meanings from meanings matching the first information in~~ a computer-readable data collection that includes terms and associates at least one meaning with each of the terms, and then determining one or more first information meanings of the document from the one or more meanings for the terms in the document;

determining, in the computer system, a plurality of candidate knowledge item meanings of the first knowledge item by selecting a plurality of meanings from meanings ~~matching~~ associated with one or more terms of the first knowledge item in the computer-readable data collection;

determining, in the computer system, a strength of relationship between each candidate knowledge item meaning and each first information meaning of the first information, and determining a respective selection probability for each candidate knowledge item meaning from the strengths; and

selecting and storing a first candidate knowledge item meaning from the plurality of candidate knowledge item meanings as ~~an interpretation~~ a meaning of the first knowledge item according to the respective selection probability associated with each candidate knowledge item meaning.

2. (Currently amended) The method of claim 1, wherein the first knowledge item is a keyword received as input to a search engine.

3. (Cancelled)

4. (Currently amended) The method of claim 1, wherein the first information comprises an advertisement from an advertiser who has bid on the first knowledge item.

5. (Previously presented) The method of claim 4, wherein the first information further comprises a destination web page associated with the advertisement.

6. (Previously presented) The method of claim 5, wherein the first information further comprises related data.

7. (Original) The method of claim 6, wherein the related data comprises cost per click data associated with the advertisement.

8. (Cancelled)

9. (Previously presented) The method of claim 1, wherein the plurality of candidate knowledge item meanings are each represented as an associated concept and wherein selecting the first candidate knowledge item meaning comprises selecting at least one of the associated concepts.

10. (Currently amended) The method of claim 1, further comprising:

establishing an initial probability, for each of the plurality of candidate knowledge item meanings, that the first knowledge item be resolved to the one of the plurality of candidate

knowledge item meanings;

wherein the selection probabilities are further based on the initial probabilities.

11. (Previously presented) The method of claim 1, wherein the first candidate knowledge item meaning comprises a weighted vector of concepts.

12. (Previously presented) The method of claim 1, wherein the first candidate knowledge item meaning comprises a related cluster of words.

13. (Cancelled)

14. (Currently amended) A computer-readable medium encoded with a computer program, the program comprising instructions to perform operations ~~for interpreting a knowledge item~~, the operations comprising:

receiving data identifying a first knowledge item;

~~identifying~~ retrieving, from a database, first information to be used in selecting a meaning for the first knowledge item, where the database associates each of a plurality of knowledge items with information related to the knowledge items, and the first information is one or more documents related to ~~a use of~~ the knowledge item;

determining one or more first information meanings of the first information, the determining comprising, for each document in the first information, selecting one or more meanings for terms in the document from meanings associated with the terms ~~by selecting one or more meanings from meanings matching the first information~~ in a computer-readable data collection that includes terms and associates at least one meaning with each of the terms, and then determining one or more first information meanings of the document from the one or more meanings for terms in the document;

determining a plurality of candidate knowledge item meanings of the first knowledge item by selecting a plurality of meanings from meanings ~~matching~~ associated with one or more terms of the knowledge item in the computer-readable data collection;

determining a strength of relationship between each candidate knowledge item meaning

and each first information meaning of the first information, and determining a respective selection probability for each candidate knowledge item meaning from the strengths; and

selecting and storing a first candidate knowledge item meaning from the plurality of candidate knowledge item meanings as ~~an interpretation~~ a meaning of the first knowledge item according to the respective selection probability associated with each candidate knowledge item meaning.

15. (Currently amended) The computer-readable medium of claim 14, wherein the first knowledge item is a keyword received as input to a search engine.

16. (Cancelled)

17. (Currently amended) The computer-readable medium of claim 14, wherein the first information comprises an advertisement from an advertiser who has bid on the first knowledge item.

18. (Previously presented) The computer-readable medium of claim 17, wherein the first information further comprises a destination web page associated with the advertisement.

19. (Previously presented) The computer-readable medium of claim 18, wherein the first information further comprises related data.

20. (Original) The computer-readable medium of claim 19, wherein the related data comprises cost per click data associated with the advertisement.

21. (Cancelled)

22. (Previously presented) The computer-readable medium of claim 14, wherein the plurality of candidate knowledge item meanings are each represented as an associated concept and wherein selecting the first candidate knowledge item meaning comprises selecting at least one of the associated concepts.

23. (Currently amended) The computer-readable medium of claim 14, further operable to cause processors to perform operations comprising:

establishing an initial probability, for each of the plurality of candidate knowledge item meanings, that the first knowledge item be resolved to the one of the plurality of candidate knowledge item meanings;

wherein the selection probabilities are further based on the initial probabilities.

24. (Previously presented) The computer-readable medium of claim 14, wherein the plurality of candidate knowledge item meanings comprises a weighted vector of concepts.

25. (Previously presented) The computer-readable medium of claim 14, wherein the plurality of candidate knowledge item meanings comprises related clusters of words.

26. (Cancelled)

27. (Currently amended) A computer-implemented method for outputting advertisements related to web page content, comprising:

receiving a first keyword;

~~identifying~~ retrieving, from a database, first information to be used in selecting a meaning for the first keyword, where the database associates each of a plurality of keywords with information ~~first information is~~ related to ~~a use of~~ the keyword;

determining, in a computer system comprising one or more servers, one or more first information meanings of the first information, the determining comprising, for one or more documents in the first information, selecting one or more meanings for terms in the document from meanings associated with the terms ~~by selecting one or more meanings from meanings matching the first information~~ in a computer-readable data collection that includes terms and associates at least one meaning with each term, and then determining one or more first information meanings of the document from the one or more meanings for terms in the document;

determining, in the computer system, a plurality of candidate keyword meanings of the

first keyword by selecting a plurality of meanings from meanings ~~matching~~ associated with the ~~knowledge item~~ first keyword in the computer-readable data collection;

determining, in the computer system, a strength of relationship between each candidate ~~knowledge item~~ keyword meaning and each first information meaning of the first information, and determining a respective selection probability for each candidate keyword meaning from the strengths;

selecting a first candidate keyword meaning from the plurality of candidate keyword meanings according to the respective selection probabilities of each candidate keyword meaning;

matching the first keyword to web page content associated with a web page;

determining a semantic sub-space defined by a radius of semantic distance from the first candidate keyword meaning, identifying an advertisement having an advertisement meaning that falls within the semantic sub-space, and matching the keyword to the advertisement;

associating, in the computer system, the advertisement with the web page content; and

outputting the advertisement when the web page is displayed.

28. (Currently amended) The method of claim 27, wherein the first information comprises text of advertisements associated with advertisers who have bid on the first keyword.

29. (Previously presented) The method of claim 28, wherein the first information further comprises destination web pages associated with the advertisements.

30. (Previously presented) The method of claim 28, wherein the first information further comprises other keywords bid on by the advertisers.

31. (Currently amended) The method of claim 27, wherein the first information comprises search results associated with the first keyword.

32. (Currently amended) A system comprising: one or more computers programmed to perform operations comprising:

receiving data identifying a first knowledge item;

retrieving, from a database, ~~identifying~~ first information to be used in selecting a meaning

for the first knowledge item, where the database associates each of a plurality of knowledge items with information related to the knowledge item, and the first information is one or more documents related to ~~a use of~~ the first knowledge item;

determining one or more first information meanings of the first information, the determining comprising, for each document in the first information, selecting one or more meanings for terms in the document from meanings associated with the terms ~~by selecting one or more meanings from meanings matching the first information~~ in a computer-readable data collection that includes terms and associates at least one meaning with each of the terms, and then determining one or more first information meanings of the document from the one or more meanings for the terms in the document;

determining a plurality of candidate knowledge item meanings of the first knowledge item by selecting a plurality of meanings from meanings ~~matching~~ associated with one or more terms of the first knowledge item in the computer-readable data collection;

determining a strength of relationship between each candidate knowledge item meaning and each first information meaning of the first information, and determining a respective selection probability for each candidate knowledge item meaning from the strengths; and

selecting and storing a first candidate knowledge item meaning from the plurality of candidate knowledge item meanings as a meaning~~an interpretation~~ of the first knowledge item according to the respective selection probability associated with each candidate knowledge item meaning.

33. (Currently amended) The system of claim 32, wherein the first knowledge item is a keyword received as input to a search engine.

34. (Currently amended) The system of claim 32, wherein the first information comprises an advertisement from an advertiser who has bid on the first knowledge item.

35. (Previously presented) The system of claim 34, wherein the first information further comprises a destination web page associated with the advertisement.

36. (Previously presented) The system of claim 35, wherein the first information further comprises related data.

37. (Previously presented) The system of claim 36, wherein the related data comprises cost per click data associated with the advertisement.

38. (Previously presented) The system of claim 32, wherein the plurality of candidate knowledge item meanings are represented as an associated concept and wherein selecting the first candidate knowledge item meaning comprises selecting at least one of the associated concepts.

39. (Currently amended) The system of claim 32, further programmed to perform operations comprising:

establishing an initial probability, for each of the plurality of candidate knowledge item meanings, that the first knowledge item be resolved to the one of the plurality of candidate knowledge item meanings;

wherein the selection probabilities are further based on the initial probabilities.

40. (Previously presented) The system of claim 32, wherein the first candidate knowledge item meaning is represented as a weighted vector of concepts.

41. (Previously presented) The system of claim 32, wherein the first candidate knowledge item meaning is represented as a related cluster of words.

42. (Currently amended) A computer-readable medium encoded with a computer program, the program comprising instructions to perform operations ~~for interpreting a knowledge item~~, the operations comprising:

receiving a first keyword;

~~identifying~~ retrieving, from a database, first information to be used in selecting a meaning for the first keyword, where the database associates each of a plurality of keywords with information related to the keyword, and the first information is related to ~~a use of~~ the first

keyword;

determining one or more first information meanings of the first information, the determining comprising, for one or more documents in the first information, selecting one or more meanings for terms in the document from meanings associated with the terms ~~by selecting one or more meanings from meanings matching the first information~~ in a computer-readable data collection that includes terms and associates at least one meaning with each term, and then determining one or more first information meanings of the document from the one or more meanings for terms in the document;

determining, in the computer system, a plurality of candidate keyword meanings of the first keyword by selecting a plurality of meanings from meanings ~~matching~~ associated with the first keyword in the computer-readable data collection;

determining, in the computer system, a strength of relationship between each candidate ~~knowledge item~~ keyword meaning and each first information meaning of the first information, and determining a respective selection probability for each candidate keyword meaning from the strengths;

selecting a first candidate keyword meaning from the plurality of candidate keyword meanings according to the respective selection probabilities of each candidate keyword meaning;

matching the first keyword to web page content associated with a web page;

determining a semantic sub-space defined by a radius of semantic distance from the first candidate keyword meaning, identifying an advertisement having an advertisement meaning that falls within the semantic sub-space, and matching the keyword to the advertisement;

associating, in the computer system, the advertisement with the web page content; and

outputting the advertisement when the web page is displayed.

43. (Previously presented) The computer-readable medium of claim 42, wherein the first information comprises text of advertisements associated with advertisers who have bid on the keyword.

44. (Previously presented) The computer readable medium of claim 43, wherein the first information comprises destination web pages associated with the advertisements.

45. (Previously presented) The computer readable medium of claim 43, wherein the first information further comprises other keywords bid on by the advertisers.

46. (Previously presented) The computer readable medium of claim 42, wherein the first information further comprises search results associated with the keyword.

47. (Currently amended) A system comprising one or more computers programmed to perform operations comprising:

receiving a first keyword;

~~identifying~~ retrieving first information to be used in selecting a meaning for the first keyword from a database, where the database associates each of a plurality keywords with information ~~first information is~~ related to ~~a use of~~ the keyword, and the first information is related to the first keyword;

determining one or more first information meanings of the first information, the determining comprising, for one or more documents in the first information, selecting one or more meanings for terms in the document from meanings associated with the terms ~~by selecting one or more meanings from meanings matching the first information~~ in a computer-readable data collection that includes terms and associates at least one meaning with each term, and then determining one or more first information meanings of the document from the one or more meanings for terms in the document;

determining, in the computer system, a plurality of candidate keyword meanings of the first keyword by selecting a plurality of meanings from meanings ~~matching~~ associated with the first keyword in the computer-readable data collection;

determining, in the computer system, a strength of relationship between each candidate ~~knowledge item~~ keyword meaning and each first information meaning of the first information, and determining a respective selection probability for each candidate keyword meaning from the strengths;

selecting a first candidate keyword meaning from the plurality of candidate keyword meanings according to the respective selection probabilities of each candidate keyword meaning;

matching the first keyword to web page content associated with a web page;

determining a semantic sub-space defined by a radius of semantic distance from the first candidate keyword meaning, identifying an advertisement having an advertisement meaning that falls within the semantic sub-space, and matching the keyword to the advertisement;

associating, in the computer system, the advertisement with the web page content; and

outputting the advertisement when the web page is displayed.

48. (Currently amended) The system of claim 47, wherein the first information comprises text of advertisements associated with advertisers who have bid on the first keyword.

49. (Previously presented) The system of claim 48, wherein the first information further comprises destination web pages associated with the advertisements.

50. (Previously presented) The system of claim 48, wherein the first information further comprises other keywords bid on by the advertisers.

51. (Previously presented) The system of claim 47, wherein the first information comprises search results associated with the keyword.

52. (Previously presented) The method of claim 1, wherein determining one or more first information meanings further includes:

determining a meaning for each document in the first information using the computer-readable data collection;

receiving related data for the first information;

calculating a weight for each document in the first information from the related data; and

determining the one or more first information meanings by combining the determined meanings for each document in the first information, where the determined meaning for each document is weighted by the calculated weight for the document.

53. (Previously presented) The method of claim 1, further comprising:

determining a semantic sub-space defined by a radius of semantic distance from the first candidate knowledge item meaning;

identifying an advertisement having an advertisement meaning that falls within the semantic sub-space; and

presenting the advertisement.

54. (Previously presented) The computer-readable medium of claim 14, further operable to cause processors to perform operations comprising:

determining a meaning for each document in the first information using the computer-readable data collection;

receiving related data for the first information;

calculating a weight for each document in the first information from the related data; and

determining the one or more first information meanings by combining the determined meanings for each document in the first information, where the determined meaning for each document is weighted by the calculated weight for the document.

55. (Previously presented) The computer-readable medium of claim 14, further operable to cause processors to perform operations comprising:

determining a semantic sub-space defined by a radius of semantic distance from the first candidate knowledge item meaning;

identifying an advertisement having an advertisement meaning that falls within the semantic sub-space; and

presenting the advertisement.

56. (Previously presented) The system of claim 32, further programmed to perform operations comprising:

determining a meaning for each document in the first information using the computer-readable data collection;

receiving related data for the first information;

calculating a weight for each document in the first information from the related data; and

determining the one or more first information meanings by combining the determined meanings for each document in the first information, where the determined meaning for each document is weighted by the calculated weight for the document.

57. (Previously presented) The system of claim 32, further programmed to perform operations comprising:

determining a semantic sub-space defined by a radius of semantic distance from the first candidate knowledge item meaning;

identifying an advertisement having an advertisement meaning that falls within the semantic sub-space; and

presenting the advertisement.